## **Work Order ID** 101145 *Thursday, May 02, 2013 8:33:18 AM*

\*101145\*

RUSH

Page 1

|                             | ,           |                           |                  |                      |             |        |              |               | -             |                  |                     |          |
|-----------------------------|-------------|---------------------------|------------------|----------------------|-------------|--------|--------------|---------------|---------------|------------------|---------------------|----------|
| Item ID:<br>Revision ID:    | D3136-043   |                           |                  | Accept               | *N900       | 040    | 1100         | <b>)*</b>     | Setup Sta     | rt *N            | S1*                 |          |
| Item Name:                  | Window Ass  | sembly                    |                  |                      |             |        |              |               | Sto           | p *N             | S2*                 |          |
| Start Date:                 | 5/2/2013    | Start Qty: 4.00           | *4*              |                      | Cust Item 1 | ID:    |              |               |               |                  | . 17                |          |
| Required Date               | e: 5/3/2013 | <b>Req'd Qty:</b> 4.00    | *4*              |                      | Customer:   |        |              |               |               |                  |                     |          |
| Reference:                  |             |                           | -                |                      |             |        |              |               |               |                  |                     |          |
| Approvals:                  | Process P   | lan: VW                   | Date: 13-5-0     | 7 Tooling:           | D           | ate:   |              | I             | Run Sta       | !/               | R1*                 |          |
|                             | QC:         |                           | Date:            | SPC (Y/N):           | <b>D</b> :  | ate:   |              |               | Sto           | *N               | R2*                 |          |
| Sequence ID/<br>Work Center | lD          | Operation Description     |                  | Set Up/<br>Run Hours | Tool ID     | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp      |          |
| Draw Nbr                    | Re          | evision Nbr               |                  |                      |             |        |              |               |               |                  |                     |          |
| D3136                       | Re          | ev E                      |                  |                      |             |        |              |               |               |                  |                     |          |
| 100                         |             | El Oll/III. man           |                  | 0.00                 |             |        | •            |               |               |                  |                     |          |
| *100*<br>Waterjet           |             | FLOW WATER JET            |                  |                      |             |        |              | 4             | ٥             |                  | JM13-5-             | Ç        |
| FLOW CNC Water              | riet        | Memo<br>1-Cut as per      | r Dwa            | 0.00                 |             |        |              |               |               |                  |                     |          |
| Plexiglas (                 | -           | Dwg Rev:_<br>Prog Rev:_   | E E              |                      |             |        |              |               |               |                  | <del>155</del><br>• |          |
| 110                         |             | QC2- Inspect parts off m  | nachine FAI/FAIB | 0.00                 |             |        |              | ě,            |               |                  |                     |          |
| *110*                       |             |                           |                  |                      |             |        |              | 4             | 0             |                  | JM13-5-2            |          |
| QC<br>Quality Control       |             | Memo                      |                  | 0.00                 |             |        |              | 7             |               | ,                | NK12-2-9            | ٠        |
| Quanty Control              |             |                           |                  |                      |             |        |              |               |               | <u> •</u>        |                     |          |
| 120                         |             | QC8- Inspect parts - seco | ond check        | 0.00                 |             |        |              |               |               |                  | Sh.                 |          |
| *120*                       |             | Memo                      |                  | 0.00                 |             |        |              | 4             | ٨             | /                | 13/05/02            | <b>)</b> |
| Quality Control             |             |                           |                  |                      |             |        |              | •             |               |                  | (3/-3/-0            | -        |
|                             |             |                           |                  |                      |             |        |              |               |               |                  |                     |          |

| NCR: | Yes | / | No |
|------|-----|---|----|

|               |  |                      |           |          |                   |                            |                 |                |                   |            | DQA:         | Date          | e:                 |
|---------------|--|----------------------|-----------|----------|-------------------|----------------------------|-----------------|----------------|-------------------|------------|--------------|---------------|--------------------|
| NCR:          | ⁄es  | / No                 |           |          |                   | WORK ORDER NON-C           | CONFO           | RM             | ANCE / UP         | DATE       | 04 Classide  | Dete          |                    |
|               |  |                      |           |          |                   | <u> </u>                   |                 |                |                   |            | QA Closed:   | Date          | :                  |
| Work Orde     | ař:  |                      |           |          |                   | DISPOSITION                |                 |                |                   | AGAINST DI | EPARTMENT    | /PROCESS      |                    |
|               | •  |                      |           |          |                   | Rework                     | 1               | SI             | kid-tube          | Crosstube  | 7            | Water Jet     | Engineering        |
| Part N        | lo.  |                      |           |          |                   | Scrap                      | ]               | Ma             | achining          | Small Fab  | Pro          | d. Eng. Coor. | Quality            |
|               |  |                      |           |          |                   | Use-as-is                  | The             | ermo           | oforming          | Finishing  | Rec/Sto      | re/Packaging  | Other              |
| NCR N         | No.  |                      |           |          |                   | Work Order Update          | J               | Lā             | arge Fab          | Composite  | j            | Supplier      |                    |
| Root          | Ī  |                      |           |          | Descri            | ption of work order update | Initial         | Initial Action |                   | tion       | Sign &       |               |                    |
| Cause         |  | Date                 | Step      | Qty      |                   | or Non-conformance         | Chief Er        | ng             | Desc              | ription    | Date         | Verification  | QC Inspector       |
| Doc/Data      |  |                      |           |          |                   |                            |                 |                |                   |            |              |               |                    |
| Equip/Tooling | Ш  |                      |           |          |                   |                            |                 | İ              |                   |            |              |               |                    |
| Operator      |  |                      |           |          |                   |                            |                 | -              |                   |            |              |               |                    |
| Material      |  |                      |           |          |                   |                            |                 |                |                   |            |              |               |                    |
| Setup         | Ц  | ]                    |           |          |                   |                            |                 |                |                   |            |              |               |                    |
| Other         |  |                      |           |          |                   |                            |                 |                |                   |            |              |               |                    |
| Process       |  |                      |           |          |                   |                            |                 |                |                   |            |              |               |                    |
| Supplier      | $\Box$                                     |                      |           |          |                   |                            |                 |                |                   |            |              |               |                    |
| Training      | $\dashv$                                   |                      | ļ         |          |                   |                            |                 |                |                   |            |              |               |                    |
| Unapproved    |  |                      | <u> </u>  |          |                   |                            | 1117.60         |                | 201               |            | <u> </u>     | L             |                    |
|               |  |                      |           |          |                   |                            | AULT CA         | IEGU           | UKY               |            | · <u> </u>   |               |                    |
| Landi         | _  |                      |           |          |                   | General<br>Bend            | Grain           | _              |                   |            | Ovalized     | _             | Pressure/Forced    |
|               |  | Bending<br>Centre No | at Cansa  | atria ta | ~/s               | BOM/Route                  | Hard            |                |                   |            | Over/Under   | tolerance     | Temperature/Cure   |
|               | -  | Cracks               | ot Concer | זנרוכ נס | <sup>0/3</sup>  - | Broken/Damaged             | $\vdash$        |                | :<br>n Incomplete |            | Part Incorre |               | Weld               |
| ,             | $\vdash$                                   |                      | Crimpod   |          | -                 | Burrs                      | <b>—</b>        |                | ns Incomplete/    | Unclear    | Part Lost/M  | <u> </u>      | Wrong Stock Pulled |
|               | Crushed/Crimped                            |                      |           |          | -                 | Contamination              | Mair            |                | ·                 | Unclear    | Part Moved   | 133111g       |                    |
|               | Cuffs Heat Treat                           |                      |           |          | -                 | Countersink                | Misla           |                |                   |            | Positioned \ | Mrong .       |                    |
|               | Heat Treat Inspection Strip in Tube        |                      |           |          | }-                | Cut Too Short              | Misre           |                | ···               | <u> </u>   | Power Loss/  | _             | Other              |
|               | Ripples in Bend                            |                      |           |          | <u> </u>          | Drill Holes                | Offse           |                |                   | <u> </u>   |              |               | 1 - 2              |
|               | $\vdash$                                   |                      |           | xtrusio  | n                 | Drawing                    | $\vdash$        |                | libration         |            |              |               |                    |
|               | Torque Waves in Extrusion Turning Sequence |                      |           |          |                   | Finish                     | Out of Sequence |                |                   |            |              | ·             |                    |

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

## Work Order ID 101145 \*101145\*

Thursday, May 02, 2013 8:33:18 AM

Item ID: D3136-043

Required Date: 5/3/2013

Accept

\*N900040100\*

Setup Start

**Revision ID:** 

**Start Date:** 

Window Assembly Item Name:

5/2/2013

QC:

Start Qty: 4.00 Req'd Qty: 4.00

**Cust Item ID:** 

**Customer:** 

Tool ID

Reference:

Approvals:

**Process Plan:** 

Date: Date:

Tooling:

SPC (Y/N):

Date:

Date:

Tool #

Plan

Code

Run

Stop

Number

Reject

Sequence ID/ Work Center ID Operation Description Set Up/ **Run Hours** 

0.00

\*130\* Thermoform

130

THERMOFORMING MACHINE

Memo

0.00

Thermoforming Machine 1-Deburr if necessary

2-Thermoform as per Dwg D3136 and Folio FTA002

Dwg Rev. \_\_\_\_

Folio Rev.

3- Engrave Part # and Batch #, and affix labels

(D3136-3)

140

0.00

\*140\* Thermoform

HAND FINISHING THERMOFORMING

Memo

0.00

Thermoforming Machine

Water sand and buff to remove scractches as required

Start

Reject

**Qty** 

Insp.

Stamp

Accept

Qty

| NCD  | V   | , | B1 - |
|------|-----|---|------|
| NCR: | Yes | / | NO   |

DQA: \_\_\_\_\_ Date: \_\_\_

| NCR:   | Yes      | / No       |            |          |       | WORK         | ORDER NON-             | COI                | NFORM    | MANCE / UF  | PDATE    |      |               |   |     |                          |
|--|----------|------------|------------|----------|-------|--------------|------------------------|--------------------|----------|---|----------|------|---------------|---|-----|--------------------------|
|  |          | <u>.</u>   |            |          |       |              |                        |                    |          |   |          |      | QA Closed:    | Dat                                       | e:  |                          |
| Vork Ord   | er:      |            |            |          |       | C            | ISPOSITION             |                    |          | 1 <del>-</del> 1 <del>-</del>                                     | AGAINS   | T DE | PARTMENT      | PROCESS                                   |     |                          |
| Part I   |          |            |            |          |       |              | Rework Scrap Use-as-is |                    | 1        | Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing |          | b    | 4             | Water Jet<br>d. Eng. Coor.<br>e/Packaging | E:  | ngineering Quality Other |
| NCR I  | No.      |            |            |          |       | Work         | Order Update           | ]                  |          | Large Fab   | Composit |      | ]             | Supplier                                  |     |                          |
| Root   |          |            |            |          | Descr | iption of wo | rk order update        |                    | nitial   | A   | ction    |      | Sign &        |   |     |                          |
| Cause  |          | Date       | Step       | Qty      |       | or Non-conf  | ormance                | Ch                 | ief Eng  | Des   | cription |      | Date          | Verification                              | ı . | QC Inspector             |
| oc/Data  |          |            |            |          |       |              |                        |                    |          |   |          |      |               |   |     |                          |
| uip/Tooling                                      | /Tooling |            |            |          |       |              |                        |                    |          |   |          |      |               |   |     |                          |
| perator  |          |            |            |          |       |              |                        |                    |          |   |          |      |               |   |     | ,                        |
| laterial   | L        |            |            |          |       |              |                        |                    |          |   |          |      |               |   |     |                          |
| etup   |          |            |            |          |       |              |                        |                    |          |   |          |      |               |   |     |                          |
| ther   |          |            |            |          |       |              |                        |                    |          |   |          |      |               |   |     |                          |
| ocess  |          |            |            |          |       |              |                        |                    |          |   |          |      |               |   |     |                          |
| pplier   |          |            |            |          |       |              |                        |                    |          |   |          |      |               |   | Ì   |                          |
| raining  |          |            | ŀ          |          |       |              |                        |                    |          |   |          |      |               |   |     |                          |
| napproved  |          |            |            |          |       |              |                        |                    |          |   |          |      |               |   |     |                          |
|  |          |            |            |          |       |              | F                      | AUL                | T CATE   | GORY  |          |      |               |   |     |                          |
| Landi  | ng (     | Gear       |            |          | _     |              | eneral                 |                    |          |   |          | _    | _             |   |     |                          |
|  |          | Bending    |            |          |       | Bend         |                        |                    | Grain    |   |          |      | Ovalized      | Ĺ   | Pre | ssure/Forced             |
|  |          | Centre No  | ot Concer  | ntric to | o/s   | BOM/Rou      | te                     |                    | Hardwa   | re  |          | L    | Over/Under    | tolerance                                 | Ten | nperature/Cure           |
|  |          | Cracks     |            |          |       | Broken/Da    | amaged                 |                    | Inspecti | on Incomplete   |          |      | Part Incorred | it [                                      | We  | ld                       |
|  |          | Crushed/0  | Crimped    |          |       | Burrs        |                        |                    | Instruct | ions Incomplete   | /Unclear | L    | Part Lost/Mi  | ssing                                     | Wro | ong Stock Pulled         |
|  |          | Cuffs      |            |          |       | Contamina    | tion                   |                    | Mainte   | nance   |          |      | Part Moved    |   |     |                          |
|  |          | Heat Trea  | it         |          |       | Countersi    | nk                     |                    | Mislabe  | led   |          |      | Positioned V  | /rong                                     |     |                          |
|  |          | Inspection | n Strip in | Tube     | Γ     | Cut Too Sho  | ort                    |                    | Misread  | Į.  |          |      | Power Loss/:  | Surge [                                   | Oth | er                       |
|  |          | Ripples in | Bend       |          |       | Drill Holes  |                        |                    | Offset   |   |          |      |               |   |     |                          |
|  |          | Torque W   | aves in E  | xtrusio  | n     | Drawing      |                        |                    | Out of ( | Calibration   |          |      |               |   |     |                          |
|  | Γ        | Turning S  | equence    |          |       | Finish       |                        | Out of Sequence    |          |   |          |      |               |   |     |                          |
| Turning Sequence Finish Wave/Twist in Tube Folio |          |            |            |          |       |              |                        | Outside Dimensions |          |   |          |      |               |   |     |                          |

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Insp.

Item ID: D3136-043 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Window Assembly \*4\* **Start Date:** 5/2/2013 Start Qty: 4.00 Cust Item ID: Required Date: 5/3/2013 Req'd Qty: 4.00 \*4\* **Customer:** Reference: Run Start **Approvals: Process Plan: Tooling:** Date: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Work Center ID Description Run Hours Code Qty Qty Number Stamp 150 QC2- Inspect parts off machine FAI/FAIB 0.00 \*150\* 4 0.00 Memo Quality Control 170 QC5- Inspect part completeness to step on W/O 0.00 \*170\* QC Memo Quality Control Inspect edge and window deformation, wrap in plastic 180 Identify as per dwg & Stock Location:\_\_ 0.00 Memo P11/1/144 256 500627 \*180\* Packaging Packaging

|               |                                     |           |          |     |                                       |                         |                     |                 |           | DQA:         | Date:         |                  |
|---------------|-------------------------------------|-----------|----------|-----|---------------------------------------|-------------------------|---------------------|-----------------|-----------|--------------|---------------|------------------|
| NCR:          | res / No                            |           |          |     | WORK ORDER NON-O                      | CONFO                   | RM                  | ANCE / UP       | DATE      |              |               |                  |
|               |                                     |           |          |     |                                       |                         |                     |                 |           | QA Closed:   | Date:         |                  |
| Work Orde     | ar.                                 |           |          |     | DISPOSITION                           | :                       |                     |                 | AGAINST D | EPARTMENT    | /PROCESS      |                  |
| WOIK OIG      |                                     |           |          |     | Rework                                | 1 <b> </b>              | SI                  | kid-tube        | Crosstube | ٦            | Water Jet     | Engineering      |
| Part N        | No.                                 |           |          |     | Scrap                                 | 1                       | Machining Small Fab |                 |           | Pro          | d. Eng. Coor. | Quality          |
|               |                                     |           |          |     | Use-as-is                             | Thermoforming Finishing |                     |                 | Finishing | Rec/Sto      | re/Packaging  | Other            |
| NCR N         | No                                  | <u> </u>  | ····     |     | Work Order Update                     | ]                       | La                  | arge Fab        | Composite | ]            | Supplier      |                  |
|               | -                                   | 1         | 1        |     | · · · · · · · · · · · · · · · · · · · | 1                       |                     | Α               | A:        | T C: 0       | 1 .           |                  |
| Root          | _                                   |           |          |     | ption of work order update            | Initia                  |                     |                 | tion      | Sign &       | ٠, ٠,٠        | 001              |
| Cause         | Date                                | Step      | Qty      |     | or Non-conformance                    | Chief E                 | ng                  | Desc            | ription   | Date         | Verification  | QC Inspector     |
| Doc/Data      |                                     |           |          |     |                                       |                         |                     |                 |           |              |               |                  |
| Equip/Tooling |                                     |           |          |     |                                       |                         |                     |                 |           |              |               |                  |
| Operator      |                                     |           |          |     |                                       |                         |                     |                 |           |              |               | ·                |
| Material      |                                     |           |          |     |                                       | 1                       |                     |                 |           |              | }             |                  |
| Setup         |                                     | 1         |          |     |                                       |                         |                     |                 |           |              |               |                  |
| Other         |                                     | 1         |          |     |                                       |                         |                     |                 |           |              |               |                  |
| Process       |                                     |           |          |     |                                       |                         |                     |                 |           |              |               |                  |
| Supplier      |                                     |           |          |     |                                       | İ                       |                     |                 |           |              |               |                  |
| Training      |                                     |           |          |     |                                       |                         |                     |                 |           |              | ·             |                  |
| Unapproved    |                                     |           |          | •   |                                       | _                       |                     |                 |           |              |               |                  |
|               |                                     |           |          |     | F                                     | AULT CA                 | TEGO                | ORY             |           |              |               |                  |
| Landi         | ng Gear                             |           |          |     | General                               |                         |                     |                 |           | _            |               |                  |
|               | Bending                             |           |          |     | Bend                                  | Gra                     | in                  |                 |           | Ovalized     |               | Pressure/Forced  |
|               | Centre N                            | lot Conce | ntric to | o/s | BOM/Route                             | Hard                    | dware               | !               |           | Over/Under   | tolerance     | Temperature/Cure |
|               | Centre Not Concentric to O/S Cracks |           |          |     |                                       |                         | ection              | tion Incomplete |           | Part Incorre | ct            | Weld             |

Instructions Incomplete/Unclear

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Wrong Stock Pulled

Other

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Part Moved

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

Cuffs

Heat Treat

Burrs

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing Finish

\*101145\*

Page 4

D3136-043 Item ID: Accept \*N900040100\* Setup Start **Revision ID:** Window Assembly Item Name: \*4\* **Start Date:** 5/2/2013 Start Qty: 4.00 **Cust Item ID:** Required Date: 5/3/2013 Req'd Qty: 4.00 **Customer:** Reference: Run Start Approvals: Process Plan: Date: Tooling: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Reject Tool# Plan Accept Reject Insp. Work Center ID Description **Run Hours** Qty Code Qty Number Stamp 190 QC21- Final Inspection - Work Order Release 0.00 \*190\* QC 0.00 Memo Quality Control

13-5-3

| NCR: Y                                 | · ·        |           |            |          |                            |                 |              |                               |                               |              |  |                           |
|--|------------|-----------|------------|----------|----------------------------|-----------------|--------------|-------------------------------|-------------------------------|--------------|--|---------------------------|
| ······································ |            |           |            |          |                            |                 |              |                               |                               | QA Closed:   | Date                                       | :                         |
| Work Orde                              | r:         |           |            |          | DISPOSITION                |                 |              |                               | AGAINST D                     | EPARTMENT,   | ·  |                           |
| Part N                                 | o          |           |            |          | Rework Scrap Use-as-is     |                 | N            | Skid-tube Machining noforming | Crosstube Small Fab Finishing |              | Water Jet<br>d. Eng. Coor.<br>re/Packaging | Engineering Quality Other |
| NCR N                                  | o          |           |            |          | Work Order Update          | ]               |              | Large Fab                     | Composite                     | ]            | Supplier                                   |                           |
| Root                                   |            |           |            | Descri   | ption of work order update | Ini             | itial Action |                               | ion                           | Sign &       | ,  |                           |
| Cause                                  | Date       | Step      | Qty        | (        | or Non-conformance         | Chie            | f Eng        | Descr                         | iption                        | Date         | Verification                               | QC Inspector              |
| Ooc/Data<br>quip/Tooling               |            |           |            |          |                            |                 |              |                               |                               |              |  |                           |
| perator                                | 7          |           |            |          |                            |                 | [            |                               |                               |              |  |                           |
| /laterial                              | 7          |           |            |          |                            |                 | -            |                               |                               |              |  |                           |
| etup                                   |            |           |            |          |                            |                 | ŀ            |                               |                               |              |  |                           |
| Other                                  |            |           |            |          |                            |                 |              |                               |                               |              |  |                           |
| rocess                                 |            |           |            |          |                            |                 |              |                               |                               |              |  |                           |
| upplier                                |            |           |            |          |                            |                 |              |                               |                               |              |  |                           |
| raining                                |            |           |            |          |                            |                 |              |                               |                               |              |  |                           |
| Inapproved                             |            |           |            |          |                            |                 |              |                               |                               |              |  |                           |
|  |            |           |            |          | F                          | AULT            | CATE         | GORY                          |                               |              |  |                           |
| Landin                                 | g Gear     |           |            |          | General                    |                 |              |                               | _                             | _            | -  | <b>_</b>                  |
|  | Bending    |           |            |          | Bend                       | $\prod$ G       | irain        |                               | <u>_</u>                      | Ovalized     |  | Pressure/Forced           |
|  | Centre N   | ot Concer | ntric to ( | D/S      | BOM/Route                  |                 | lardwai      |                               | _                             | Over/Under   |  | Temperature/Cure          |
| L                                      | Cracks     |           |            | _        | Broken/Damaged             | _               |              | on Incomplete                 |                               | Part Incorre | <b>⊢</b>                                   | Weld                      |
| 1                                      | Crushed/   | Crimped   |            |          | Burrs                      | -               |              | ions Incomplete/U             | Inclear                       | Part Lost/Mi | ssing                                      | Wrong Stock Pulled        |
|  | Cuffs      |           |            |          | Contamination              | -               |              | nance                         | L                             | Part Moved   |  |                           |
| ļ                                      | Heat Treat |           |            |          | Countersink                | $\vdash$        | /lislabel    |                               | L                             | Positioned V |  | ¬                         |
| 1                                      | Inspectio  |           | Tube       | <u> </u> | Cut Too Short              | $\blacksquare$  | /lisread     |                               | L                             | Power Loss/  | Surge                                      | Other                     |
| 1                                      | Ripples in |           |            | <u> </u> | Drill Holes                | -               | Offset       |                               |                               |              |  |                           |
| ļ                                      | Torque V   |           |            | י 📙      | Drawing                    | $\vdash$        |              | Calibration                   |                               |              |  |                           |
|  | Turning S  | equence   |            |          | Finish                     | Out of Sequence |              |                               |                               |              |  |                           |

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

## **Picklist Print**

Thursday, May 02, 2013 8:33:18 AM

Work Order ID:

101145

Parent Item:

D3136-043

Parent Item Name:

Window Assembly

**Start Date:** 5/2/2013

Required Date: 5/3/2013

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP Rev:A04.02.04New issueKJ/DS

IPP Rev.B 07.05.29 IPP rev C 07.09.28

Rev E dwg

Thermoform in-house DL

EC verified by:DD IPP Rev:D 10.06.24 added note in qc5

seq 170 DD verf:EC

| Component Item ID/<br>Item Name        | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID  | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status   |
|--|------------------------|---------------|-------------|---------------------|------------------|------------------|--------------------|----------------|-------------|--------------|---------------|----------------|----------|
| D3108-9<br>Decal                       |                        | Manufactured  | No          |                     |                  | 100              | Each               | 504.0000       | 2           | 8            |               |                | ,H       |
|  |                        |               |             | ST026 3455-4654     |                  | 504<br>26<br>478 |                    | oc Code        |             | 8            |               |                | 13/05/02 |
| MACRLICS.125<br>1/8" Polycast II Sheet |                        | Purchased     | No          |                     | ·                | 170              | sf                 | 621.7445       | 3.9         | 15.6         |               | ·              | Jm13-5-2 |
|  |                        |               |             | <b>Location</b>     |                  | Loc Qty          | Lo                 | c Code         |             |              |               |                |          |
|  |                        |               |             | MAT019              |                  | 278              |                    |                |             |              |               |                |          |
|  |                        |               |             | 1237                | 04               | 33               |                    | ·              |             |              |               |                |          |
|  |                        |               |             | 1239                | 49               | 71               |                    |                |             |              |               |                |          |
| ÷                                      |                        |               |             | 1245                | 59               | 174              |                    |                | 194         | 559          |               |                |          |
|  |                        |               |             | ther                |                  | 343.7445         |                    |                |             |              |               |                |          |
|  |                        |               |             | 12389               | 95               | 343.7445         |                    |                |             |              |               |                |          |

Page 1

|               |                          |           |          |        |                            |            |                         |                   |              |       | DQA:                | Da           | ite: |                    |
|---------------|--------------------------|-----------|----------|--------|----------------------------|------------|-------------------------|-------------------|--------------|-------|---------------------|--------------|------|--------------------|
| NCR: Y        | es / No                  |           |          |        | WORK ORDER NON-O           | COI        | NFORM                   | /ANCE / UPI       | DATE         |       |                     |              |      |                    |
|               |                          |           |          |        | <u> </u>                   |            |                         |                   |              |       | QA Closed:          | Da           | ite: |                    |
| Work Orde     | r <del>i.</del>          |           |          |        | DISPOSITION                |            |                         |                   | AGAINST D    | E     | PARTMENT            | /PROCESS     |      |                    |
| WOIR OIGC     |                          |           |          |        | Rework                     | 1          |                         | Skid-tube         | Crosstube    |       |                     | Water Jet    |      | Engineering        |
| Part N        | lo.                      |           |          |        | Scrap                      |            |                         | Machining         | Small Fab    |       | Prod. Eng. Coor.    |              |      | Quality            |
|               |                          |           |          |        | Use-as-is                  | ]          | Thermoforming Finishing |                   |              |       | Rec/Store/Packaging |              |      | Other              |
| NCR N         | lo                       |           |          |        | Work Order Update          | ]          |                         | Large Fab         | Composite    |       |                     | Supplier     | ·[   |                    |
| Root          |                          |           |          | Descri | ption of work order update |            | Initial                 | Act               | ion          |       | Sign &              |              |      |                    |
| Cause         | Date                     | Step      | Qty      |        | or Non-conformance         | Ch         | nief Eng                | Descr             | iption       |       | Date                | Verification | n    | QC Inspector       |
| Doc/Data      |                          |           |          |        |                            |            |                         |                   |              | i     |                     |              |      |                    |
| Equip/Tooling |                          |           |          |        |                            |            |                         |                   |              |       |                     |              |      |                    |
| Operator      |                          | ļ         |          |        |                            |            |                         |                   |              |       |                     |              |      |                    |
| Material      |                          |           |          |        |                            |            |                         |                   |              |       |                     |              |      |                    |
| Setup         |                          |           | }        |        |                            |            |                         |                   |              |       |                     |              |      |                    |
| Other         |                          |           |          |        |                            |            |                         |                   |              |       |                     | ٠            |      |                    |
| Process       |                          |           |          |        |                            |            |                         | I                 |              |       |                     |              |      |                    |
| Supplier      |                          |           |          |        |                            |            |                         |                   |              |       |                     |              |      |                    |
| Training      |                          |           |          |        |                            | 1          |                         | I                 |              |       |                     |              |      |                    |
| Unapproved    |                          |           |          |        |                            |            |                         |                   |              |       |                     |              |      |                    |
|               |                          |           |          |        | F                          | AUL        | LT CATE                 | SORY              |              |       |                     |              |      | <u></u>            |
| Landir        | ng Gear                  |           |          |        | General                    |            | _                       |                   | <u> </u>     |       | •                   |              |      | -                  |
|               | Bending                  |           |          |        | Bend                       |            | Grain                   |                   | _            |       | Ovalized            |              |      | Pressure/Forced    |
|               | Centre N                 | lot Conce | ntric to | O/S    | BOM/Route                  |            | Hardwa                  | re                | L            |       | Over/Under          | tolerance    |      | Temperature/Cure   |
|               | Cracks                   |           |          |        | Broken/Damaged             | L          | Inspecti                | on Incomplete     | L            |       | Part Incorred       | ct           | L    | Weld               |
|               | Crushed/Crimped          |           |          |        | Burrs                      |            | Instructi               | ions Incomplete/L | Jnclear      |       | Part Lost/Mi        | ssing        |      | Wrong Stock Pulled |
|               | Cuffs                    |           |          |        | Contamination              |            | Mainte                  | nance             |              |       | Part Moved          |              |      |                    |
|               | Heat Tre                 | at        |          |        | Countersink                | Mislabeled |                         |                   | Positioned V | Vrong |                     | ·<br>•       |      |                    |
|               | Inspection Strip in Tube |           |          |        | Cut Too Short              |            | Misread                 | I                 |              |       | Power Loss/         | Surge        |      | Other              |
|               | Ripples in Bend          |           |          |        | Drill Holes                | Offset     |                         |                   |              |       |                     |              |      |                    |

Out of Calibration

Out of Sequence

Outside Dimensions

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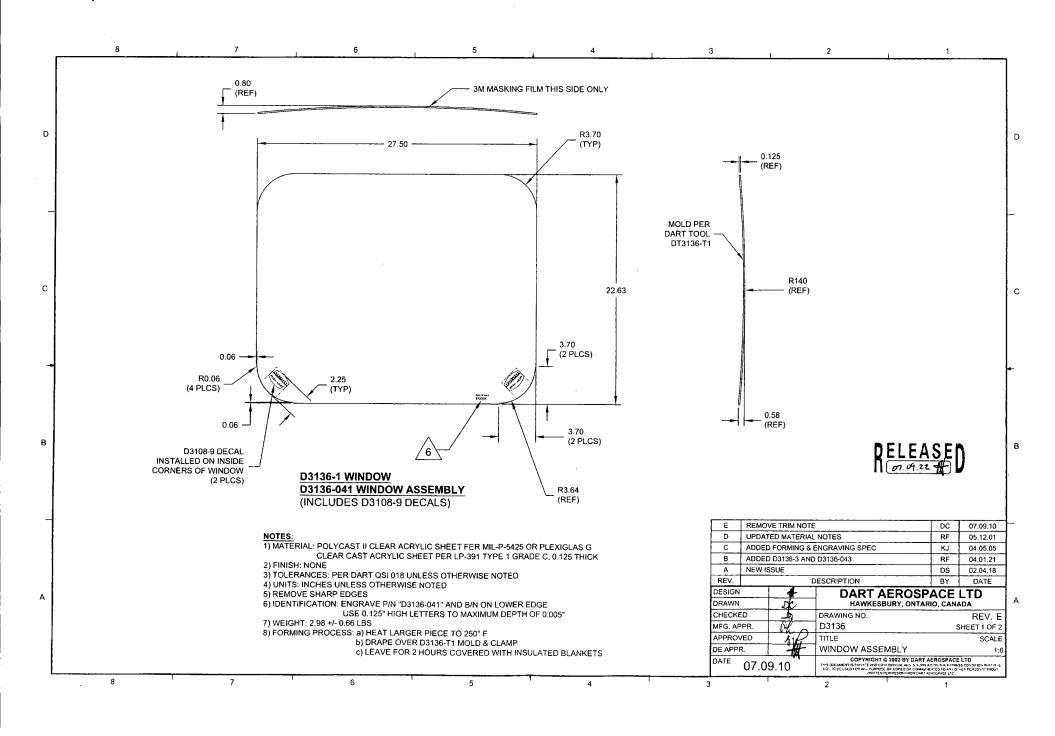
Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish



|               |  |         |          |     |        |                            |                                 |          |                        |                   | DQA:          | Date:              |                 |
|---------------|--|---------|----------|-----|--------|----------------------------|---------------------------------|----------|------------------------|-------------------|---------------|--------------------|-----------------|
| NCR:          | Yes                                    | / No    |          |     |        | WORK ORDER NON-            | 100                             | NFORM    | MANCE / UP             | DATE              |               |                    |                 |
|               |  |         |          |     |        |                            |                                 |          |                        |                   | QA Closed:    | Date:              |                 |
| Work Orde     | or.                                    |         |          |     |        | DISPOSITION                |                                 |          |                        | AGAINST DE        | PARTMENT      | /PROCESS           |                 |
| WOIK OIG      | ٠٠.                                    |         |          |     |        | Rework                     | 1                               |          | Skid-tube              | Crosstube         | 1             | Water Jet          | Engineering     |
| Part I        | No.                                    |         |          |     |        | Scrap                      | 1                               |          | Machining              | Small Fab         | Pro           | d. Eng. Coor.      | Quality         |
|               | •                                      |         |          |     |        | Use-as-is                  | 1                               |          | hermoforming Finishing |                   | Rec/Sto       | re/Packaging       | Other           |
| NCR I         | No.                                    |         |          |     |        | Work Order Update          | ]                               |          | Large Fab              | Composite         |               | Supplier           |                 |
|               |  |         | <b>,</b> | ,   |        |                            |                                 |          |                        |                   | ,             |                    |                 |
| Root          |  |         |          |     | Descri | ption of work order update | 1                               | nitial   | Act                    | tion              | Sign &        |                    |                 |
| Cause         |  | Date    | Step     | Qty | (      | or Non-conformance         | Ch                              | ief Eng  | Desc                   | ription           | Date          | Verification       | QC Inspector    |
| Doc/Data      |  |         |          |     | [      |                            |                                 |          |                        |                   |               |                    |                 |
| Equip/Tooling |  |         |          |     |        |                            | ĺ                               |          |                        |                   |               |                    |                 |
| Operator      |  |         |          |     |        |                            |                                 |          |                        |                   |               |                    |                 |
| Material      | $\Box$                                 |         | į        |     |        |                            |                                 |          |                        |                   |               |                    |                 |
| Setup         |  | -       |          | -   | 1      |                            |                                 |          |                        |                   |               |                    | ·               |
| Other         |  |         |          |     |        |                            |                                 |          |                        |                   |               |                    |                 |
| Process       |  |         |          |     | İ      |                            |                                 |          |                        |                   |               |                    |                 |
| Supplier      | П                                      |         |          |     |        |                            |                                 |          |                        |                   |               |                    |                 |
| Training      | П                                      |         |          |     |        |                            |                                 |          |                        |                   |               |                    |                 |
| Unapproved    |  |         |          |     |        |                            |                                 |          |                        |                   |               |                    |                 |
|               |  |         |          |     |        | F                          | AUL                             | T CATE   | GORY                   |                   |               |                    |                 |
| Landi         | ng C                                   | Gear    |          |     |        | General                    |                                 | _        |                        |                   | _             |                    | _               |
|               |  | Bending |          |     |        | Bend                       |                                 | Grain    |                        |                   | Ovalized      |                    | Pressure/Forced |
|               | Centre Not Concentric to O/S BOM/Route |         |          |     |        | BOM/Route                  | Hardware                        |          |                        | Over/Under        | tolerance     | Temperature/Cure   |                 |
|               |  | Cracks  |          |     |        | Broken/Damaged             | Г                               | Inspecti | ion Incomplete         |                   | Part Incorred | ct                 | Weld            |
|               | Crushed/Crimped                        |         |          |     |        | Burrs                      | Instructions Incomplete/Unclear |          |                        | Part Lost/Missing |               | Wrong Stock Pulled |                 |

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Moved

Positioned Wrong

Power Loss/Surge

Other

Contamination

Countersink

Cut Too Short Drill Holes

Drawing

Finish

Folio

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Ripples in Bend

Turning Sequence

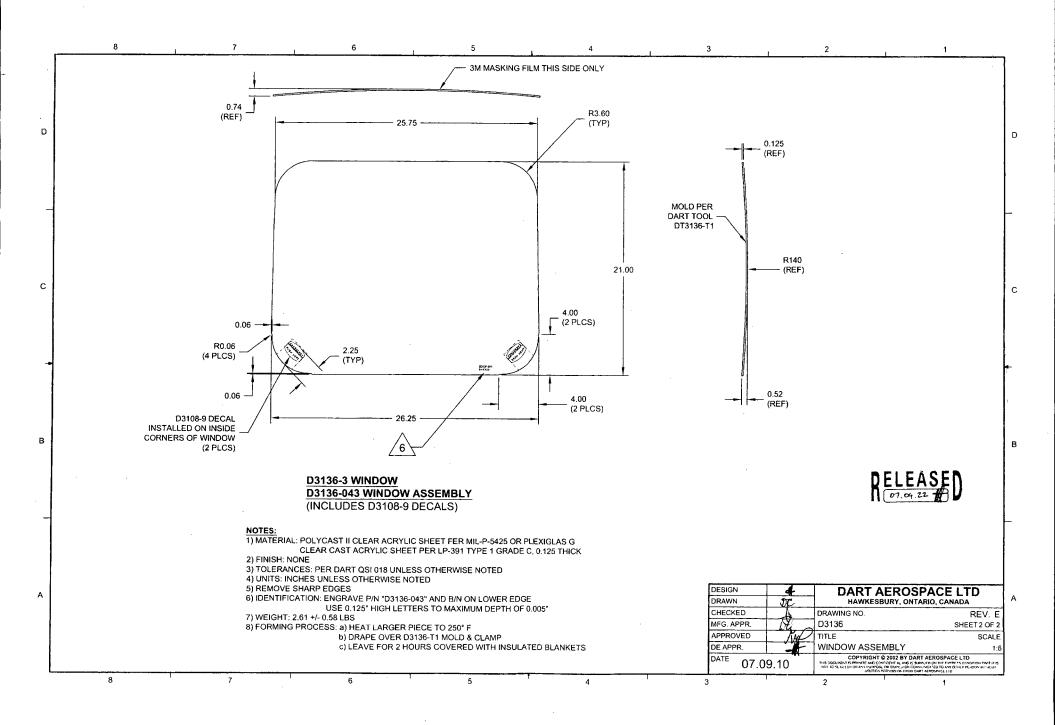
Wave/Twist in Tube

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion



| NCR: | Yes | / | No |
|------|-----|---|----|
|      |     | • |    |

| NCR: Y                                | ICR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE |          |            |            |               |                                |                    |           |                     |                               |              |  |                           |                                       |
|---------------------------------------|---|----------|------------|------------|---------------|--------------------------------|--------------------|-----------|---------------------|-------------------------------|--------------|--|---------------------------|---------------------------------------|
|                                       |   |          | _          |            |               |                                |                    |           | _                   |                               | QA Closed:   | Dat  | te:                       |                                       |
| Work Orde                             | ŕ:  |          |            |            |               | DISPOSITION                    |                    |           | , , ,               | AGAINST DE                    | PARTMENT     | /PROCESS                                   | ·                         |                                       |
| Part N                                |   |          |            |            |               | Rework<br>Scrap                |                    | ſ         | Skid-tube Machining | Crosstube Small Fab Finishing | 4            | Water Jet<br>d. Eng. Coor.<br>re/Packaging | Engineering Quality Other |                                       |
| NCR N                                 | o   |          |            |            |               | Use-as-is<br>Work Order Update | ]                  |           | noforming Large Fab | Composite                     | , Rec/Stor   | Supplier                                   | <u> </u>                  | ֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓ |
| Root                                  |   |          |            |            | Descri        | iption of work order update    | lı                 | nitial    | Act                 | ion                           | Sign &       |  |                           |                                       |
| Cause                                 |   | Date     | Step       | Qty        |               | or Non-conformance             | Chi                | ief Eng   | Descr               | iption                        | Date         | Verification                               | n QC Inspecto             | r                                     |
| oc/Data                               |   |          |            |            |               |                                |                    |           |                     |                               |              |  |                           |                                       |
| quip/Tooling                          | _   |          |            |            |               |                                |                    |           |                     |                               |              |  |                           |                                       |
| perator                               | _   |          |            |            |               |                                | -                  |           |                     |                               |              |  |                           |                                       |
| laterial                              |   |          |            |            |               |                                |                    |           |                     |                               |              |  |                           |                                       |
| etup                                  |   |          |            |            |               |                                |                    |           |                     |                               |              |  |                           |                                       |
| ther                                  | _   |          |            |            |               |                                |                    |           |                     |                               |              |  |                           |                                       |
| rocess                                | _   |          |            |            |               |                                | :                  |           |                     |                               |              |  |                           |                                       |
| upplier                               | _   |          | i          |            |               |                                |                    |           |                     |                               |              |  |                           |                                       |
| raining                               | _   |          |            |            |               |                                |                    |           |                     |                               |              |  |                           |                                       |
| napproved                             |   |          |            |            | <u> </u>      |                                |                    | - 64 - 75 |                     |                               | <u> </u>     | <u></u>                                    |                           |                                       |
| · · · · · · · · · · · · · · · · · · · |   |          |            |            |               |                                | AUL                | T CATE    | GURY                | ·                             |              |  |                           |                                       |
| Landin<br>T                           | _   |          |            |            |               | General                        |                    | C         |                     | _                             | Ovalized     | i  | Pressure/Forced           |                                       |
| }                                     |   | ending   |            |            | _             | Bend                           | $\vdash$           | Grain     |                     | <br>                          | Over/Under   | toloranco                                  | Temperature/Cur           |                                       |
| }                                     | —   |          | t Concer   | itric to ( | <sup>5)</sup> | BOM/Route                      | $\vdash$           | Hardwa    |                     | <u> </u>                      | Part Incorre |  | Weld                      | e                                     |
| }                                     |   | racks    |            |            |               | Broken/Damaged                 | $\vdash$           |           | on incomplete       | la close                      | Part Lost/Mi |  | Wrong Stock Pulle         | od                                    |
| -                                     |   | rushed/0 | Crimped    |            | -             | Burrs                          |                    |           | ions Incomplete/L   | Inclear                       | Part Lost/Mi | issitiR                                    | Wrong Stock Full          | eu                                    |
|                                       |   | uffs     |            |            | -             | Contamination                  | -                  | Mainte    | *                   | <u> </u>                      | -i           | Mrong                                      |                           |                                       |
| }                                     | Heat Treat Countersink                            |          |            |            |               |                                | Mislabe            |           | -                   | Positioned V                  |              | Other                                      |                           |                                       |
|                                       | Inspection Strip in Tube Cut Too Short            |          |            |            | $\vdash$      | Misread                        | 1                  | L         | Power Loss/         | onige                         | I Tottiei    |  |                           |                                       |
| ļ                                     | Ripples in Bend Drill Holes                       |          |            |            |               | Offset                         |                    |           |                     |                               |              |  |                           |                                       |
|                                       | Torque Waves in Extrusion Drawing                 |          |            |            |               |                                | Out of Calibration |           |                     |                               |              |  |                           |                                       |
|                                       | Turning Sequence Finish                           |          |            |            |               |                                | Out of Sequence    |           |                     |                               |              |  |                           |                                       |
|                                       | W   | /ave/Twi | ist in Tub | oe -       | l             | Folio                          | Outside Dimensions |           |                     |                               |              |  |                           |                                       |

DQA:

Date:

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| DART AEROSPACE LTD           | Work Order: / | 61.65       |
|------------------------------|---------------|-------------|
| Description: Window Assembly | Part Number:  | D3136-043   |
| Inspection Dwg: D3136 Rev: E |               | Page 1 of 1 |

| FIRST ARTICLE INSPECTION CHECKLIST |           |                     |        |        |                      |             |        |  |  |  |
|------------------------------------|-----------|---------------------|--------|--------|----------------------|-------------|--------|--|--|--|
|                                    | )         | First Arti          |        |        |                      |             |        |  |  |  |
| Drawing<br>Dimension               | Tolerance | Actual<br>Dimension | Accept | Reject | Method of Inspection | Co          | mments |  |  |  |
| 21.00                              | +/-0.030  | 21.00"              | _      |        | T                    |             |        |  |  |  |
| 25.75                              | +/-0.030  | 25.75"              | -      |        | T                    |             |        |  |  |  |
| 26.25                              | +/-0.030  | 25.75"              | _      |        | T                    |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
| ,                                  |           |                     |        |        |                      | ·           |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      |             |        |  |  |  |
|                                    |           |                     |        |        |                      | <del></del> |        |  |  |  |
| Measured by:                       | Jm        | Audited by:         | Dh.    |        | Prototype App        | roval:      | `N/A   |  |  |  |
| Date:                              | 13-5-2    | Date:               | B/05   | 102    |                      | Date:       | N/A    |  |  |  |
| Dot Doto                           | Channa    |                     |        |        | 1.5                  |             |        |  |  |  |

|     | y        |           |              |          |
|-----|----------|-----------|--------------|----------|
| Rev | Date     | Change    | Revised by , | Approved |
| Α   | 07.10.19 | New Issue | KJ/EC/DD 🕠   | X        |

|                        |                  |                                       | •          |                             |     |                        |                            |   |         |  |                  | DQA:                      | Date         | e:                 |
|------------------------|------------------|---------------------------------------|------------|-----------------------------|-----|------------------------|----------------------------|---|---------|--|------------------|---------------------------|--------------|--------------------|
| NCR:                   | Yes              | / No                                  |            |                             |     |                        | WORK ORDER NON-            | COI   | VFOR    | MANCE / UP                                     | DATE             | OA Classel                | Dete         |                    |
| _                      |                  |                                       |            |                             |     |                        | ,                          |   |         |  |                  | QA Closed:                | Date         | :<br>              |
| Vork Order:            |                  |                                       |            |                             |     |                        | DISPOSITION AGAINST DE     |   |         |  |                  | EPARTMENT/PROCESS         |              |                    |
| Part No.               |                  |                                       |            |                             |     | Rework Scrap           |                            | Skid-tube Crosstube Small Fab Thermoforming Finishing |         | Water Jet Prod. Eng. Coor. Rec/Store/Packaging |                  | Engineering Quality Other |              |                    |
| NCR No.                |                  |                                       |            | Use-as-is Work Order Update |     | Large Fab Composite    |                            | Supplier  |         |  |                  |                           |              |                    |
| Root                   |                  |                                       |            |                             | Des | crip                   | otion of work order update | 1   | nitial  | Ac   | tion             | Sign &                    |              |                    |
| Cause                  |                  | Date                                  | Step       | Qty                         |     |                        | or Non-conformance         | Ch  | ief Eng | Desc   | ription          | Date                      | Verification | QC Inspector       |
| oc/Data<br>uip/Tooling |                  |                                       |            |                             |     |                        |                            |   |         |  |                  |                           |              |                    |
| perator                |                  |                                       | İ          |                             |     |                        | •                          |   |         |  |                  |                           |              |                    |
| aterial                |                  |                                       |            |                             |     |                        |                            |   |         |  |                  |                           |              |                    |
| tup                    |                  |                                       |            |                             |     |                        |                            |   |         | ,  |                  |                           |              |                    |
| her                    |                  |                                       | <u> </u>   |                             |     |                        |                            |   |         |  |                  |                           |              |                    |
| ocess                  | Ш                |                                       |            |                             | ,   |                        |                            |   |         |  |                  |                           |              |                    |
| pplier                 |                  | :                                     |            |                             |     |                        |                            |   |         |  | •                |                           |              |                    |
| aining                 |                  |                                       | }          |                             | 1   |                        |                            |   |         |  | •                |                           | :            |                    |
| approved               |                  | <u> </u>                              | l          |                             |     |                        | ·                          |   |         |  |                  |                           |              |                    |
|                        | •                | · · · · · · · · · · · · · · · · · · · |            |                             |     |                        |                            | AUI   | T CATE  | GORY   |                  |                           |              |                    |
| Land                   | ing (            | 1                                     |            |                             | ,   |                        | General                    | _   | 7       |  |                  | 7                         | г            | <b>-</b>           |
|                        |                  | Bending                               |            |                             |     |                        | Bend                       | <u> </u>  | Grain   |  |                  | Ovalized                  | _            | Pressure/Forced    |
|                        |                  | Centre Not Concentric to O/S          |            |                             |     |                        | BOM/Route                  | $\perp$   | Hardwa  | •  |                  | Over/Under tolerance      |              | Temperature/Cure   |
|                        | Ŀ                | Cracks                                |            |                             |     |                        | Broken/Damaged             | <b>—</b>  |         | on Incomplete                                  |                  | Part Incorrect            |              | Weld               |
|                        | L                | Crushed/Crimped                       |            |                             |     |                        | Burrs                      | <b>—</b>  |         | ions Incomplete/Unclear                        |                  | Part Lost/Missing         |              | Wrong Stock Pulled |
|                        | <u>_</u>         | Cuffs                                 |            |                             |     |                        | Contamination              | —   |         | ntenance                                       |                  | Part Moved                |              |                    |
|                        |                  | Heat Treat - Countersink              |            |                             |     |                        | <u> </u>                   | Mislabeled  |         |  | Positioned Wrong |                           |              |                    |
|                        | $\vdash$         | Inspection                            |            | Tube                        |     |                        | Cut Too Short              |   | Misread |  |                  | Power Loss/               | Surge        | Other              |
|                        | $\vdash$         | Ripples in                            |            |                             |     |                        | Drill Holes                |   | Offset  |  |                  |                           |              |                    |
| ŧ                      | $\perp$          | Torque W                              | /aves in E | Extrusio                    | n   |                        | Drawing                    |   | 4       | Calibration                                    |                  |                           |              |                    |
|                        | Turning Sequence |                                       |            |                             |     | Finish Out of Sequence |                            |   |         | A. 1   |                  |                           |              |                    |

Outside Dimensions

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Wave/Twist in Tube